ABSTRACT OF THE DISCLOSURE

A process for forming a rod of bioabsorbable polymeric material includes extruding the material at a temperature above its melting point at a controlled rate of between .4 to 20 feet per minute to form a continuous rod. The continuous rod is then cooled by passing the rod through a cooling bath to cause nucleation. The continuous rod is passed through a first puller running at least at the same speed as the extruder. A second puller is provided which is moving faster than the first puller so that the continuous rod is elongated at a ratio of between 2 and 12 times. During this elongation, the rod is heated to a temperature of between 55°C and 140°C in an oven located between the first and second pullers. The rod is annealed at a temperature of between 70°C and 110°C after being elongated but prior to exiting the second puller. Upon exiting the second puller, the tension in the rod is released and the continuous rod is then allowed to cool. A cutting station is then provided to cut the continuous rod into desired lengths.